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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,135	04/23/2001	Mitsushi Yoshioka	392.1714	1599

21171 7590 09/03/2003

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WASHINGTON, DC 20005

EXAMINER
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LUK, EMMANUEL S

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 09/03/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/839,135

Applicant(s)

YOSHIOKA, MITSUSHI

Examiner

Emmanuel S. Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-15 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Emoto (5679384).

Emoto teaches the claimed apparatus having

Emoto teaches an injection molding apparatus having an outer frame (11), the outer frame having movable sections (56) and a fixed section (41) attached to the outside portion of the outer frame, the outer frame and fixed sections are arranged to surround the screw shaft (63). The first portion (63) is attached to the injection unit (12), the second portion detachably attached to the frame (41) facing the first portion, the second portion is disposed in a hole in the frame and relative to the first portion.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 1, 2, 5-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibuya (6051896).

Shibuya teaches the claimed apparatus having an injection mechanism with a movable section (51) linked to the screwshaft (Ks) extending in an axial direction, an outer frame (4), a fixed section attached to the outer frame, extending in the axial direction (84, 85a, 85b, 85c, 85d), a plurality of linear motors (3) each comprised of a movable section, an outer frame and fixed section surround the screw shaft (Fig. 1, 11, 12).

Shibuya fails to teach the fixed section detachably attachable to the outer frame. However, the fixed sections comprise of separate elements from the outer frame (4) and upon disassembly of the apparatus would allow for the detachment of the elements. Thus it would have been obvious to one of ordinary skill in the art to recognize that the fixed section is detachably attached to the outer frame.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibuya in view of Chaya.

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Shibuya teaches the claimed apparatus as shown above.

Shibuya fails to teach adjustment means.

Chaya teaches a linear motor, wherein a position adjustment means (Fig. 6) adjust the gaps between the magnets (13) and the corresponding inner yokes (12) on which the linear motor magnetic circuit coils (9) arranged on the head carriage (6) are respectively wound and thus maximizing the efficiency of the of magnets (Col. 1, lines 50-52).

It would have been obvious to one of ordinary skill in the art to modify Shibuya with adjustment means as taught by Chaya because it allows for adjusting the gap between parts and thereby improve efficiency of the magnets.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shibuya et al in view of Wacker (EP 0744815 A2).

Shibuya teaches the claimed apparatus as shown above.

Shibuya fails to teach a linear guide.

Wacker teaches linear motor elements (PM) on a frame (T) that surrounds the element (P), a linear guide is provided at a point in the frame represented at SP.

It would have been obvious to one of ordinary skill in the art to modify Shibuya with a linear guide to the frame as taught by Wacker because it ensures the movable section moves accordingly in the desired direction.

***Allowable Subject Matter***

8. Claims 3 and 4 are allowed.

9. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach a molding machine having a linear motor on the fixed section and movable section, wherein the fixed section of the linear motors are detachably attached to the outer frame or the fixed section is a lid to the hole section in the outer frame. The closest prior art, Shibuya, fails to teach this detachable fixed section.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

11. Applicant's arguments, see amendment B, filed 6/9/03, with respect to the rejection(s) of claim(s) 1-11 under Shibuya, Chaya and Wacker have been fully considered and are not persuasive. Therefore, a new rejection has been made concerning the newly amended claims 1-11 to address the matter of the detachably

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attached fixed section to the outer frame. A new ground(s) of rejection is made in view of Emoto concerning newly added claims 12-15.

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (703) 305-1558. The examiner can normally be reached on Monday through Friday 8 to 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on (703) 308-0457. The fax phone

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number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

E.L.

  
W. L. WALKER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700